Small Business Innovation Research/Small Business Tech Transfer

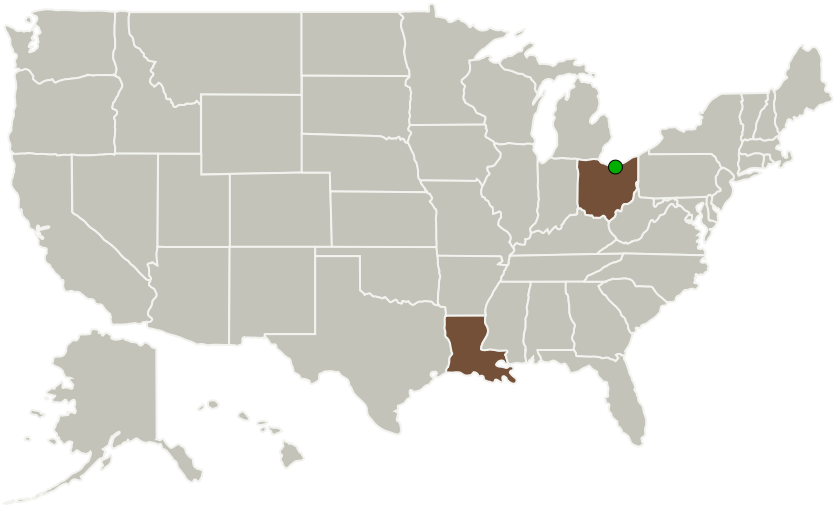
Meso-Scale Ericsson Power Generation System, Phase I

Completed Technology Project (2017 - 2017)

Project Introduction

Inventherm's patented meso-scale Ericsson power generation system (MEPS) will be used as the enabling technology for radioisotope generators that exceed the performance of existing Stirling power conversion systems. The system will meet or exceed the solicitation specifications including operating at efficiencies greater than 25%, with a life greater than 10 years while being compact and light weight. It is anticipated that the conversion efficiency will exceed 40% with a power density over 100 We/kg.

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
Inventherm	Lead Organization	Industry	Baton Rouge, Louisiana
Glenn Research Center(GRC)	Supporting Organization	NASA Center	Cleveland, Ohio

Primary U.S. Work Locations	
Louisiana	Ohio

Meso-Scale Ericsson Power Generation System, Phase I Briefing Chart Image

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Images

Briefing Chart Image
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(https://techport.nasa.gov/image/130771)

Organizational Responsibility

Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

Lead Organization:

Inventherm

Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

Project Management

Program Director:

Jason L Kessler

Program Manager:

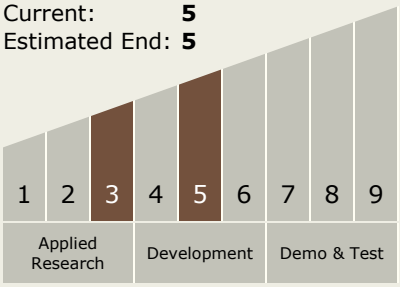
Carlos Torrez

Principal Investigator:

Jason Hugenroth

Technology Maturity (TRL)

Start: **3**
Current: **5**
Estimated End: **5**



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Technology Areas

Primary:

- TX03 Aerospace Power and Energy Storage
  - TX03.1 Power Generation and Energy Conversion
    - TX03.1.2 Heat Sources

Target Destinations

The Sun, Earth, The Moon, Mars, Others Inside the Solar System, Outside the Solar System